

REMARKS

Continued examination and favorable reconsideration are respectfully requested.

Claims 1-9, 11, 16, 18, and 45-46 remain pending in the application. Claims 10, 12-15, 17, 19-44, and 47 were previously canceled without prejudice or disclaimer. By this amendment, claim 1 has been amended. No new matter has been added.

Applicants would like to thank Examiner Zhou for the courtesies extended to Applicants undersigned representative Nicholas Stabler during the telephone conference of March 17, 2009. During the telephone conference, the rejection of the claims under 35 U.S.C. §101 was discussed. The Examiner requested that Applicants respond to the most recent Office Action with arguments including the reasons that the claims should be allowed in view of the recent *Bilski* decision. Applicants have amended claim 1 to even further define that in the claimed method the computer performs at least one of the generating and the identifying. No new matter has been added. No further searching by the Examiner is necessitated by the amendment. Entry of the amendment after final rejection and timely favorable action are respectfully requested.

Rejection of Claims under 35 U.S.C. § 101

At page 2 of the Office Action, claims 1-9, 11, 16, 18, and 45-46 are rejected under 35 U.S.C. §101 because the claimed invention is allegedly directed to non-statutory subject matter. For the reasons set forth below, Applicants respectfully traverse the rejection.

At page 4 of the Office Action, the Examiner asserts that claim 1 can be read so that the computer provided for is only limited to performing the step of assembling. The Examiner asserts

that assembling is not a core step of the method. Applicants have amended claim 1 so that the computer performs at least one of the generating and the identifying. As pointed out by the Examiner at page 4 of the Office Action, each of the generating and the identifying is a “core step” of the method recited in claim 1.

In the recent *In re Bilski* decision 545 F.3d 943, 88 U.S.P.Q.2d 1385 (2008), the CAFC declared that a claimed process is surely patent-eligible under 35 U.S.C. §101 if (1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. In a Memorandum dated January 7, 2009 (copy attached hereto), USPTO Deputy Commissioner for Patent Examination Policy, John Love, set forth guidance for examining process claims in view of *In re Bilski*. In the Deputy Commissioner’s words, “the machine or transformation must impose meaningful limits on the method claim’s scope to pass the test.” The Deputy Commissioner makes it clear that merely reciting a specific machine or a particular transformation of a specific article in an insignificant step, such as data gathering or outputting, is not sufficient to pass the test.

As stated by the Court in *Bilski*, to be patentable under 35 U.S.C. § 101, the claim must pass either the machine test or the transformation test. Applicants respectfully submit that claim 1 of the present invention passes both the machine test and the transformation test. Present claim 1 features a method comprising the step of “providing a computer” and further recites that “at least one of the generating and the identifying is performed by the computer” (emphasis added). The steps of generating, and identifying are each significant steps in the method of claim 1. By requiring that at least one of these steps is performed by the computer, Applicants have clearly

ties one or more significant method steps to a particular machine or apparatus, and have satisfied the machine test set forth by the *Bilski* Court. Furthermore, claim 1 features a step of identifying ambiguous bases present within consensus sequence information, and also a step of outputting the ambiguous bases to a user. Thus, claim 1 produces a transformation of data, because claim 1 comprises the steps of assembling sequence information, generating rule-based criteria, identifying ambiguous bases, and outputting ambiguous bases to a user. The step of outputting to a user transforms unknown data into identified data for a user to interact with. Accordingly, claim 1 is deemed to define patentable subject matter in view of the recent decision by the CAFC in *Bilski*.

Each of claims 2-9, 11, 16, 18, and 45-46 depends from claim 1, and the rejection of claims 2-9, 11, 16, 18, and 45-46 is deemed to be overcome for at least the same reasons that the rejection of claim 1 is deemed to be overcome. Reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

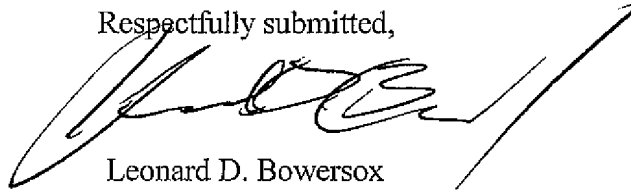
In view of the foregoing remarks, Applicants respectfully request favorable reconsideration of the present application and a timely allowance of the pending claims.

Should the Examiner deem that any further action by Applicants or Applicants' undersigned representative is desirable and/or necessary, the Examiner is invited to telephone the undersigned at the number set forth below.

U.S. Patent Application No. 10/672,937
Amendment After Final dated March 23, 2009
In Response to Office Action Dated March 17, 2009

If there are any other fees due in connection with the filing of this response, please charge the fees to deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Leonard D. Bowersox', is written over the typed name.

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Enclosures: Copy of January 7, 2009, Memorandum from John J. Love



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MEMORANDUM

DATE: January 7, 2009

TO: Technology Center Directors
Patent Examining Corps

FROM: John J. Love *John J. Love*
Deputy Commissioner
for Patent Examination Policy

SUBJECT: Guidance for Examining Process Claims in view of *In re Bilski*

Recently, the Court of Appeals for the Federal Circuit issued an opinion affirming a final decision by the Board of Patent Appeals and Interferences sustaining a rejection of claims because they were not directed to patent-eligible subject matter under 35 U.S.C. § 101. See *In re Bilski*, 545 F.3d 943, 88 USPQ2d 1385 (Fed. Cir. 2008). The court's opinion clarified the standards applicable in determining whether a claimed method constitutes a statutory "process" under § 101. Office policy is consistent with the court's opinion in *Bilski*.

We are presently studying the full ramifications of the court's clarification and other recent developments in the law. In view of the *Bilski* decision, the guidelines are being redrafted to reflect the most current standards for subject matter eligibility. Until the guidelines are completed, examiners should continue to follow the current patent subject matter eligibility guidelines appearing in MPEP 2106, with the following modification.

As explained in a memorandum dated May 15, 2008, entitled "Clarification of 'Processes' under 35 USC § 101", a method claim must meet a specialized, limited meaning to qualify as a patent-eligible process claim. As clarified in *Bilski*, the test for a method claim is whether the claimed method is (1) tied to a particular machine or apparatus, or (2) transforms a particular article to a different state or thing. This is called the "**machine-or-transformation test**". It should be noted that the machine-or-transformation test from *Bilski* is slightly different from the test explained in the May 15 Clarification memo, which was based on the Office's interpretation of the law prior to *Bilski*.

There are two corollaries to the machine-or-transformation test. First, a mere field-of-use limitation is generally insufficient to render an otherwise ineligible method claim patent-eligible. This means the machine or transformation must impose meaningful limits on the method claim's scope to pass the test. Second, insignificant extra-solution activity will not transform an unpatentable principle into a patentable process. This means reciting a specific machine or a particular transformation of a specific article in an insignificant step, such a data gathering or outputting, is not sufficient to pass the test.

For guidance, examiners are encouraged to consult their managers and to consult additional training materials as they are developed.